

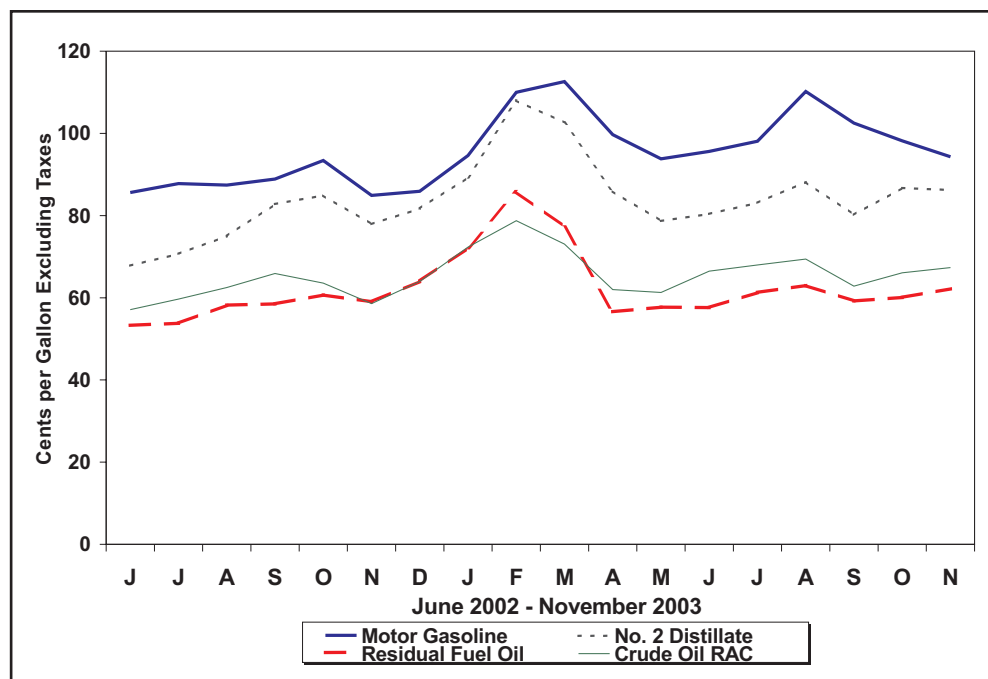
Highlights

World crude oil prices continued to be volatile in November, extending the unsettled trend in prices seen during the past several months. Fundamental issues fostered an increase in speculation of oil commodities during November. Perhaps the principal cause behind the surge in technical buying was low stock levels of crude oil and refined products in Atlantic basin markets, particularly in the United States. Exacerbating those conditions, crude oil demand from Asia, especially China, remained robust during November as economic conditions in the region continued to improve. Some market watchers predict crude oil prices will increase appreciably if demand from Western markets rises significantly following the end of the refinery maintenance season and Asian demand continues at its current high rate. In addition to those factors, the problem-beset resumption of Iraqi crude oil exports also supported prices. Although the Organization of Petroleum Exporting Countries (OPEC) officially implemented its latest round of production cuts at the start of the month, the reduction had only a relatively modest impact on prices. Further, reports indicate some members neglected the new quotas to benefit from the high prices. The group is scheduled to meet again on December 4 when they expect discussions about production levels to take place.

In the United States, crude oil and refined product prices were on the rise during most of November. While a number of issues affected prices, stock levels and new specifications for gasoline in major East and West coast markets acted as leading factors behind the upward trend in prices for all of the major petroleum products throughout the month. California, New York, and Connecticut have all mandated ethanol as the oxygenate to be used

when manufacturing reformulated gasoline (RFG), banning the use of MTBE as of January 1, 2004. Ethanol is primarily produced in the Midwest, and due to its hydrophilic nature, cannot be shipped through petroleum products pipelines but must be transported by rail, ships, and trucks. Additionally, ethanol-blended gasoline cannot be stored in tanks but must be blended into a base gasoline stock at the terminal rack prior to end-use consumption. Small amounts of water typically found in storage tanks can disrupt the legally-specified composition of fuel mandated for use in carbon monoxide pollution control areas. Because of this difference in the storage and distribution system, accounting for supplies and assessing inventories may be affected. However, it must also be noted that the price for ethanol soared during November. The sharp increase can be directly attributed to jump in demand for the product resulting from the phase-out of MTBE. Gasoline prices in New York and Los Angeles spot

Figure HL1. Crude Oil and Petroleum Product Wholesale Prices



Sources: Energy Information Administration. Crude oil refiner acquisition cost: Form EIA-14, "Refiners' Monthly Cost Report"; petroleum product prices: Form EIA-782A, "Refiners'/Gas Plant Operators' Monthly Petroleum Product Sales Report."

Table HL1. U.S. Refiner Prices and Volumes of Petroleum Products

(Prices: Cents per Gallon Excluding Taxes, Volumes: Million Gallons per Day)

Products	Sales to End Users						Sales for Resale					
	November 2003		October 2003		November 2002		November 2003		October 2003		November 2002	
	Price	Volume	Price	Volume	Price	Volume	Price	Volume	Price	Volume	Price	Volume
Motor Gasoline	109.5	63.7	115.0	64.7	101.2	63.3	94.3	305.5	98.2	320.2	85.0	309.0
Conventional	104.1	34.8	108.8	35.9	98.1	35.6	90.0	203.7	93.4	215.0	80.7	202.7
Regular	101.4	27.2	106.0	28.1	95.0	27.2	88.4	171.0	91.8	181.5	79.2	167.0
Midgrade	110.5	4.1	115.5	4.3	104.6	4.6	95.1	11.3	98.9	11.7	84.8	11.9
Premium	117.7	3.5	122.8	3.5	112.8	3.8	99.8	21.4	103.7	21.7	89.3	23.8
Oxygenated	113.0	3.9	118.7	3.5	103.0	3.6	99.1	11.4	104.8	10.5	88.2	11.8
Regular	109.9	3.0	115.8	2.7	99.2	2.8	97.7	9.0	103.4	8.3	86.7	9.1
Midgrade	118.8	0.6	124.4	0.5	112.0	0.5	99.8	1.3	105.4	1.3	88.8	1.4
Premium	129.6	0.4	135.4	0.3	120.3	0.3	110.0	1.1	115.7	1.0	99.1	1.2
Reformulated	116.5	25.0	123.4	25.2	105.5	24.0	103.4	90.3	108.3	94.7	93.7	94.5
Regular	112.1	18.0	119.2	18.3	101.2	17.2	100.6	69.3	105.4	73.3	90.4	70.8
Midgrade	123.1	3.1	130.0	3.1	112.1	3.2	109.9	5.7	116.0	5.8	100.9	7.0
Premium	131.7	3.9	138.2	3.8	119.8	3.6	114.1	15.3	119.3	15.6	104.6	16.8
Aviation Gasoline	W	W	150.8	0.1	141.8	0.1	124.4	0.4	131.3	0.5	116.1	0.5
Kerosene-Type Jet Fuel	87.9	43.8	84.6	44.5	76.7	46.5	87.1	11.4	83.9	11.5	75.1	14.4
Propane (Consumer Grade)	56.0	2.5	56.4	3.0	46.9	3.1	58.7	40.5	59.7	38.4	49.4	37.2
Kerosene	120.9	0.1	117.2	0.1	104.4	0.2	89.4	2.9	91.5	2.3	81.3	3.0
No. 1 Distillate	101.9	0.3	101.8	0.2	95.3	0.3	100.1	2.3	101.8	1.2	94.7	2.2
No. 2 Distillate	91.4	18.8	91.6	19.2	83.4	21.5	86.2	122.8	86.7	137.3	77.9	125.4
No. 2 Fuel Oil	89.1	2.6	88.2	2.5	80.0	3.3	84.2	18.1	84.2	19.9	74.8	24.7
No. 2 Diesel Fuel	91.8	16.2	92.1	16.6	84.0	18.2	86.5	104.8	87.1	117.4	78.7	100.6
Low Sulfur	94.0	10.9	93.8	11.4	86.7	12.3	87.1	88.7	87.6	101.5	79.1	87.9
High Sulfur	87.2	5.3	88.4	5.3	78.4	5.9	83.4	16.1	83.7	15.9	75.5	12.7
No. 4 Fuel^a	77.7	0.3	74.9	0.3	72.5	0.3	80.3	0.0	75.2	0.1	67.0	0.3
Residual Fuel Oil	66.7	8.2	65.2	9.7	60.1	11.7	62.2	5.7	60.1	5.7	58.7	8.8
Sulfur Content not > 1 %	76.7	2.5	70.7	3.0	73.6	3.3	67.0	2.4	65.0	2.1	59.1	5.1
Sulfur Content > 1 %	62.2	5.7	62.8	6.7	54.8	8.4	58.8	3.4	57.2	3.6	58.2	3.8

W = Withheld to avoid disclosure of individual company data.

^a Includes No. 4 fuel oil and No. 4 diesel fuel.

Notes: Motor gasoline averages and totals prior to October 1993 include leaded gasoline.

Notes: Values shown for the current month are preliminary. Values shown for previous months are revised. Data are final upon publication in the *Petroleum Marketing Annual*.

Source: Energy Information Administration Form EIA-782A, "Refiners'/Gas Plant Operators' Monthly Petroleum Product Sales Report."

markets were affected by those issues, but on the whole, the change to the new formulation product appears to be moving relatively smoothly. For example, the Los Angeles spot market price for RFG reached \$1.160 per gallon on November 13, but declined to 93.0 cents per gallon on the last business day of the month. While news and rumors of refinery outages had made a modest impression on gasoline prices, the effects were generally short-lived. Distillate prices across regional markets generally followed the lead of other products' prices. Mild weather, especially in the Northeastern section of the country, held prices in check. In addition, reports that stocks were well above the levels seen at this time last year also prevented prices from experiencing drastic changes.

Additional November market and sales activity for crude oil and the principal petroleum products are summarized in the following sections.

Crude Oil

The daily spot price for West Texas Intermediate (WTI) crude oil at Cushing, Oklahoma was volatile during November. Opening at \$29.24 per barrel, the price increased significantly during the following two and a half weeks. A combination of factors drove the rise including reports of decreases in crude oil and finished product stock levels (particularly gasoline) and techni-

cal market factors. On November 18, the price reached \$33.16 per barrel, the high for the month and the highest price since the start of the Iraqi War in Mid-March. The price dropped sharply due to technical matters during the final week of the month. Closing at \$30.33 per barrel, the price was \$1.09 higher than where it started the month.

- Monthly average crude oil price trends were mixed in November. The average domestic crude oil first purchase price increased 70 cents (2.6 percent), to \$27.22 per barrel.
- The average free-on-board (f.o.b.) cost of imported crude oil fell 37 cents (1.4 percent), to \$25.62 per barrel. The average landed cost of foreign crude oil declined 20 cents (0.7 percent), to \$27.09 per barrel.
- The average refiner acquisition cost for domestic crude oil underwent the largest change again, increasing \$1.12 (3.9 percent), to \$29.55 per barrel. The average cost of imported crude oil to U.S. refiners inched up 15 cents (0.5 percent), to \$27.47 per barrel, while the composite refiner acquisition cost for crude oil rose 53 cents (1.9 percent), to \$28.28 per barrel.

Petroleum Products

Motor Gasoline

At New York Harbor, the daily spot price for regular gasoline was animated during November. Some speculation and concern about refinery operations, talk of increasing demand, rising ethanol prices shortly before the implementation of MTBE-free reformulated gasoline regulations in several states, and reports of inventory decreases contributed to the volatility. The price moved to a firmly upward path after opening the month at 83.1 cents per gallon. Rising steadily during the next several weeks, the price reached the high of 96.6 cents per gallon on November 19 on news of continuing supply issues. The price retreated in the days just before the long Thanksgiving Day weekend as inventory data showed a rise in gasoline stocks. The price closed November at 89.4 cents per gallon, more than 6 cents higher than where it began the month.

- Continuing the trend seen in October, monthly average gasoline prices fell in all categories during November. The average price for retail sales of motor gasoline by refiners dropped 5.5 cents to \$1.095 per gallon, while the average wholesale price fell 3.9 cents to 94.3 cents per gallon. Including data reported by a sample of motor gasoline marketers, the national average price at company-operated retail outlets declined 4.7 cents to \$1.085 per gallon. The average wholesale price decreased 3.5 cents to 94.7 cents per gallon. The average dealer tank wagon (DTW) price fell 4.4 cents to \$1.012 per gallon, while the average rack price decreased 3.6 cents to 92.7 cents per gallon. The average price for bulk sales fell 1.9 cents to 84.0 cents per gallon. The margin between reformulated gasoline and conventional gasoline prices dropped to 10.6 cents at the retail level and to 11.5 cents at the wholesale level. Oxygenated gasoline prices were 7.2 cents higher than conventional gasoline prices at retail, and 7.8 cents more at wholesale.
- Refiner motor gasoline sales slowed in November. Total sales fell 15.7 million gallons per day (4.1 percent), to an average of 369.2 million gallons per day. Retail sales declined 1.0 million gallons per day (1.5 percent), while wholesales decreased 14.7 million gallons per day (4.6 percent). Rack sales made up 66.9 percent of wholesales, while DTW and bulk sales accounted for 18.6 percent and 14.5 percent, respectively. RFG made up 31.2 percent of total motor gasoline sales, while oxygenated gasoline explained 4.1 percent of sales.

No. 2 Distillate

Following the general trend seen in the market, the New York Harbor daily spot price for No. 2 heating oil increased during much of November. Opening at 79.7 cents per gallon, the price rose steadily during the following weeks, supported by rising gasoline prices. The high was reached on November 18, when the price hit 88.7 cents per gallon. After declining during the final week of the month, the price closed the month at 82.7 cents per gallon, 3 cents higher than where it began November.

- November monthly average prices for No. 2 distillates show modest changes from October levels. The national average residential sales price for No. 2 distillate underwent the largest change, rising 4.5 cents to \$1.282 per gallon. The average wholesale price registered a 0.3 cent decrease, falling to 86.9 cents per gallon. The average price for No. 2 diesel fuel at company-operated retail outlets inched up 0.2 cent, while the average No. 2 diesel fuel wholesale price fell 0.5 cent. The difference between low- and high-sulfur diesel fuel prices was 2.8 cents at retail and 3.5 cents at wholesale.
- Refiner sales of No. 2 distillates fell in November. Total sales decreased 14.7 million gallons per day (9.4 percent), to 141.7 million gallons per day. Sales of No. 2 fuel oil declined 1.7 million gallons per day (7.6 percent), while sales of No. 2 diesel fuel fell 13.0 million gallons per day (9.7 percent). Low-sulfur diesel fuel accounted for 82.3 percent of all refiner diesel fuel sales, and 70.3 percent of all refiner No. 2 distillate sales.

Residual Fuel Oil

- November monthly average residual fuel oil prices generally increased from October levels. Refiner prices for low-sulfur residual fuel oil rose 6.0 cents to 76.7 cents per gallon at retail, and 2.0 cents to 67.0 cents per gallon at wholesale. The average retail price for high-sulfur residual fuel oil fell slightly, dropping 0.6 cent to 62.2 cents per gallon, while the wholesale price increased 1.6 cents to 58.8 cents per gallon. Including data reported by a sample of residual fuel oil marketers, the average low-sulfur residual fuel oil price rose 3.0 cents to 73.9 cents per gallon at retail, while the wholesale price increased 1.3

cents to 73.1 cents per gallon. The retail price for high-sulfur residual fuel oil dropped 0.6 cent to 62.4 cents per gallon, while the wholesale price increased 2.1 cents to 62.5 cents per gallon.

- Residual fuel sales by refiners fell in November. Total sales declined 1.5 million gallons per day (9.7 percent) to 13.9 million gallons per day. Low-sulfur residual fuel sales decreased 200,000 gallons per day (3.9 percent), while high-sulfur residual fuel oil sales declined 1.2 million gallons per day (11.7 percent).

Other Products

- Prices for products included in this section show a mixture of changes. Refiner propane prices dropped 0.4 cent per gallon at retail and 1.0 cent per gallon at wholesale. Including data from a sample of propane marketers, the average residential propane price rose 5.4 cents per gallon. The average retail price increased 6.0 cents per gallon, while the average wholesale propane price declined 0.9 cent per gallon. Prices for kerosene-type jet fuel and No. 4 distillate rose at both levels, while kerosene and No. 1 distillate prices rose at retail but fell at wholesale. The wholesale price for aviation gasoline decreased in November.
- Sales of these products were also mixed during November. Sales of propane fell at retail but increased at wholesale, while No. 4 distillate sales did just the opposite. Kerosene and No. 1 distillate sales increased at both retail and wholesale, while and kerosene-type jet fuel declined at both levels. Sales of aviation gasoline fell at the wholesale level during November.